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## C-A OPERATIONS PROCEDURES MANUAL

### 2.29 C-A Procedure for Enhanced Work Planning for Experimenters

Text Pages 2 through 6

Attachments

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: \_\_\_\_\_  
Collider-Accelerator Department Chairman Date

P. Cirnigliaro

## 2.29 C-A Procedure for Enhanced Work Planning for Experimenters

### 1. Purpose

- 1.1 This procedure provides C-A Experimental Work Control Coordinator with requirements for Work Control and needed planning. This procedure documents Work Control Coordinator's responsibilities and communications that exist at the C-A Department for Work Control. The Enhanced-Work-Planning endeavor applies to operation, maintenance, and repair activities for experiments at C-A, for which written procedures and/or risk assessments do not exist. The purpose of this enhanced planning is to enhance a job performed at a experiment with written procedures, and /or with risk reviews, whenever they are deemed to be lacking.
- 1.2 This procedure documents existing Work Controls at C-A.
- 1.3 C-A Work Control is intended to capture the five core functions from DOE's Integrated Safety Management System Guide, DOE P 450.4:
  - Core Function 1, Define Scope of Work
  - Core Function 2, Identify Hazards
  - Core Function 3, Develop Controls
  - Core Function 4, Perform Work
  - Core Function 5, Feedback and Improvement
- 1.4 Definitions:
  - 1.4.1 A Work-Control system is a C-A Department approved system used by a Work Planner to document the requirements of this procedure.
  - 1.4.2 A job is any modification, maintenance, setup and/or construction work by C-A, or non-C-A personnel, within the C-A Complex.

### 2. Responsibilities

- 2.1 Only Work Control Coordinators shall implement this procedure.
- 2.2 The Work Control Coordinator is responsible for ensuring all C-A Work Controls listed in [C-A-OPM-ATT 2.28.d](#) are applied when appropriate.
- 2.3 Work Control Coordinator shall review all jobs against the criteria stated [in C-A-OPM-ATT 2.28.d](#), [Table 1](#) and [Table 2](#) from [BNL ESH Standard 1.3.6](#).

**Note:**

Enhanced Work Planning and Work Control are two different aspects of work. All jobs must be entered into a Work Control System, whereas Moderate and High Hazard jobs also require Enhanced Work Planning.

**3. Prerequisites**

- 3.1 Experimental Work Control Coordinators shall be trained in C-A Experimental Work Control Coordinator Training (C-A EXPWCC). This training shall consist of Read and Acknowledgement of C-A-OPM [2.29](#), [2.28.d](#), and [BNL ESH Standard 1.3.5](#), [Table 1](#) and [Table 2](#) from [BNL ESH Standard 1.3.6](#).

**4. Precautions**

None

**5. Procedure**

- 5.1 All work initiated by the Work Control Coordinator shall be documented in a Work Control System.
- 5.1.1 The design of the Work Control Coordinator's Work Control System shall be in the form of a list of Low Hazard, Skill-of-the-Craft jobs, performed at the experiment.
- 5.1.2 The Work Control Coordinator, along with the [Liaison Physicist](#) shall determine the list of jobs.
- 5.1.3 The Work Control Coordinator shall have their Work Control System approved by the C-A ESHQ Division Head.
- 5.1.4 The Work Control System shall have the following minimum elements:
- A list of Low Hazard, Skill of the Craft jobs that will be routinely performed by qualified personnel. A cover sheet, [C-A-OPM-ATT 2.29.a](#), shall be implemented. The list shall be approved by the ESHQ Division Head, or the C-A Experimental Safety Review Committee, prior to performing work at the experiment.

- Environmental concerns and waste minimization opportunities, shall be addressed through a review by the C-A Environmental Compliance Representative.
- A list of jobs that are covered by procedures shall be implemented. This list shall be segregated from the list of Low Hazard, Skill-of- the-Craft jobs. Prior to implementation, the C-A ESHQ Division Head shall approve all procedures. A copy of all approved procedures shall be maintained at the experiment for inspection.
- A signoff sheet, [C-A-OPM-ATT 2.29.b](#), shall be implemented for Low Hazard Skill-of-the-Craft jobs, or jobs Covered by Procedures. A copy of the completed signoff sheet shall be forwarded to the ESHQ Division Head, or designee.
- Collider-Accelerator Support (CAS), Target Desk, or Main Control Room can provide Work Planning for Moderate and High Hazard jobs. Work initiation may commence following approval from the ESHQ Division Head, or designee.
- Procedures that are documented and approved by the C-A ESHQ Division Head, or designee, may be used in place of an Enhanced Work Plan.
- Enhanced Work Permits for Moderate/High Hazard jobs, [EWP Form](#), shall be available at the job site.

**Note:**

The Enhanced Work Planning Guidance on Determining Low, Medium, and High Hazard (Risks) [C-A-OPM-ATT 2.28.d](#) and [Table 1](#) and [Table 2](#) from [BNL ESH Standard 1.3.6](#). is available to work planners as an aid in evaluation of hazard levels of the job.

- 5.2 Coordination, priority and scheduling of jobs are to be communicated by Work Control Coordinators at experiment planning meetings.
- 5.3 Prior to assigning work, Work Control Coordinators shall evaluate each job using the criteria in [OPM-ATT 2.28.d](#) and [Table 1](#) and [Table 2](#) from [BNL ESH 1.3.6](#).
- 5.4 While a job is under way, changes to a job may require the Work Control Coordinator to re-review the job against the criteria in [C-A-OPM-ATT 2.28.d](#), and [Table 1](#) and [Table 2](#) from [BNL ESH 1.3.6](#). In such cases, re-review and re-approval of the job is required by the C-A ESHQ Division Head.

- 5.5 Worker feedback on randomly selected jobs shall be assigned using the C-A Self Assessment Program ([C-A-OPM 9.4.2](#)).
- 5.6 Worker feedback regarding the Work Planning on a specific job shall be captured in the [EWP Form](#). This form is to be used when the job performed deviates from the enhanced work plan.
- 5.6.1 Copies of completed forms with feedback are to be forwarded to C-A ESHQ Division Head, or designee, for review and shall be maintained.
- 5.6.2 Management encourages feedback. There shall be no reprisals by anyone completing the feedback form.
- 5.7 The Work Control Coordinator determines whether a post job review is necessary. Assistance for the review may include the ES&H Coordinator, or other subject matter experts. Criteria for determining if post job review is required includes, but is not limited to:
- if the job deviated from the Enhanced Work Planning
  - if exposure to hazards/hazardous materials exceeded expectations
  - if lessons learned would be beneficial from review
  - if required on a Radiation Work Permit.
- 5.7.1 In some cases the review team may decide that a post job analysis would be beneficial for lessons learned, and will request the review.
- 5.7.2 The C-A ESHQ Division Head, or designee, shall maintain post job reviews.
- 5.9 The C-A Work Control Manager shall ensure that work planning described herein shall be captured in the C-A Independent Assessment Program, [C-A-OPM 13.10.1](#).
- 5.9.1 The C-A Work Control Manager shall ensure this written work control procedure is in compliance with BNL policy.

## **6. Documentation**

- 6.1 The Work Control Coordinator shall also maintain any procedures or checklists that resulted from the Enhanced Work Planning process.
- 6.2 Enhanced Work Planning Permits and associated records shall be kept for an indefinite period.

## **7. References**

- 7.1 [ES&H Standard 1.3.6, "Work Planning and Control for Operation".](#)
- 7.2 [ES&H Standard 1.3.5, "Planning and Control of Experiments".](#)
- 7.3 [C-A-OPM-ATT-2.28.d, "C-A Work Screening Guide".](#)

## **8. Attachments**

- 8.1 [C-A-OPM-ATT 2.29.a "Low Hazard – Skill of the Craft Jobs and Jobs Covered by Procedures Cover Sheet".](#)
- 8.2 [C-A-OPM-ATT 2.29.b "Low Hazard – Skill of the Craft Jobs / Jobs Covered by Procedure Signoff Sheet".](#)